APPLICATION FOR SUPPORT FOR:

INTERNATIONAL WORKSHOP/MEETING ON GENE REGULATION/ONCOGENESIS/AIDS

Program Directors/Organizers:

Dr. S. D. Kottaridis
Director of Virology
Hellenic Anticancer Institute
Papanikolaou Research Center
of Oncology
171, Alexandras Av.
Athens 11532
GREECE

Dr. Myron Essex
Chairman
Department of Cancer Biology
Harvard School of Public Health
665 Huntington Avenue
Boston, MA 02115

Dr. Takis S. Papas
Chief, Laboratory of Molecular Oncology
National Cancer Institute
Building 469, Room 203
Frederick, MD 21701-1013

Dr. Flossie Wong-Staal
Chief, Molecular Genetics of
Hematopoietic Cells Section
Laboratory of Tumor Cell Biology
National Cancer Institute
Bethesda, MD 20892

Dates of Proposed Meeting: September 15-21, 1989

Meeting Site: Loutraki, Greece, Poseidon Hotel

Person to contact if award is made available:

Dr. S. D. Kottaridis
Director of Virology
Hellenic Anticancer Institute
Papanikolaou Research Center of Oncology
171, Alexandras Av.
Athens 11532, Greece

Performance Sites:

Hellenic Anticancer Institute 171, Alexandras Av. Athens 11532, Greece (Co-Sponsor)	(Public) Non-Profit Institute (Government)

GOALS AND OUTCOME

Due to the combined efforts of many researchers and their deployment of powerful new immunological and recombinant genetic technologies, it has become possible to elucidate the etiological agent responsible for the disease known as AIDS. Presently, an even greater focus is being mounted by health professionals and clinical scientists worldwide for the development of therapeutic strategies and vaccines needed to combat and prevent this dreaded epidemic disease. It is safe to say that this task remains one of the most imperative, high-priority goals facing health scientists and researchers today. In spite of the remarkably rapid progress made in defining the genomic structure of the human immunodeficiency virus (HIV) and its encoded products, the immediate prospect of developing an efficacious vaccine appears to be problematic because: a successful vaccine against the HIV family of retroviruses has to overcome the significant obstacle posed by its extensive genomic diversity, particularly in the envelope gene; and HIV is a member of the lentivirus family where difficulties in obtaining neutralizing antibody and the ability to elude host defenses by antigenic variation are legend. Therefore, in the absence of a suitable vaccine, an alternative and realistic goal has to be to formulate a strategy that involves the employment of antiviral agents in patients infected by HIV. Towards this end, drug chemotherapy has offered one viable alternative approach to arrest the progression of immunodeficiency initiated by the retroviral agent of AIDS. In developing further therapeutic strategies, the life cycle of HIV and related retroviruses must be taken into account. It is known that transcriptional regulation of HIV involves both viral and cellular proteins; several non-structural gene-encoded proteins, tat, rev, and nef, are known to be involved in HIV-viral gene regulation and may comprise a complex interplay with a multitude of cellular-regulatory factors. Some of these processes appear to be accomplished by modulation of trans-acting factors that bind to genetic regulatory elements that result in the activation or repression of gene transcription.

It is from this perspective that we propose to organize a meeting that would bring together a number of experts from the select areas of gene regulation and oncogenesis (retroviral oncogenes, anti-oncogenes, etc.) and have them serve to cross-fertilize and stimulate new ideas and approaches for those in the AIDS research field, as well as their own. It is certain that this type of meeting will have broad appeal to clinicians, molecular biologists, immunologists, and virologists and the topics selected will include areas of direct interest to each of them, particularly stressing the progress that has rapidly been achieved in understanding the fundamental areas of eukaryotic transcriptional activator functions and how they are controlled, as well as the advances made in the elucidation of HIV transcriptional regulation via mutagenesis studies.

As a member of the retrovirus family, the regulatory proteins essential to the HIV-life cycle offers an unusually choice target for the development of antiviral-specific drugs, largely because they may be unique to this class of retroviruses and are not found in host cells. Cellular regulatory mechanisms, however, will be important for these researchers to discuss and comprehend and may provide a coherent picture of how such factors are able to interact with viral and cellular elements and effect transcription, as well as how they may be ultimately controlled; this information is certain to be important not only in human retroviral diseases, but in human oncogenesis as well.

LOCATION AND DATES

The Meeting: "Gene Regulation/Oncogenesis/AIDS" will be held in Loutraki, Greece, from September 15, 1989, thru September 21, 1989. It is anticipated that 30-35 experts will give formal presentations, and that the total attendance will be about 200-250 scientists.

ORGANIZATION

The organizers for this meeting/workshop are established scientists in the areas covered by the meeting; they are suitably positioned in their fields to be able to provide an excellent overview of the current status of research in their sphere of expertise. The invited participants are representative of a cross-section of the leading researchers in the areas covered by the meeting (i.e., gene regulation, molecular oncogenesis and AIDS research); they are all active research investigators who have made outstanding contributions in their respective fields.

Dr. Steve Kottaridis is an expert virologist, presently at the Hellenic Anticancer Institute in Athens, serving as the Director of Virology. Dr. Kottaridis is a well-known virologist with extensive clinicial experience; he is an active researcher in EBV and related diseases and is now also involved as the Anticancer Institute's coordinator in human retroviral diseases. He has served as a past organizer of the successful international EBV meetings in Greece.

Dr. Myron Essex is one of the foremost experts in the area of AIDS research and retroviral diseases; he is presently the Chairman, Department of Cancer Biology, at the Harvard School of Public Health, as well as the Associate Director, Center for Infectious Diseases, Harvard School of Public Health. Dr. Essex is a Leukemia Society Scholar, recipient of an NCI Outstanding Investigator Award and Lasker Award, as well as a member of the NCI-DCE Board of Scientific Counselors, and numerous scientific advisory and Editorial Boards.

Dr. Takis S. Papas is Chief of the NCI Laboratory of Molecular Oncology. He is a world-renown researcher in the area of oncogenes and gene expression and regulation. He has discovered a number of new oncogenes and is presently actively involved in the molecular biology of retroviral and proto-oncogenes and the application of expression vectors to human retroviral research. Dr. Papas holds an academic position as a Professor of Biology at The Johns Hopkins University (since 1984) and has been a Professor of Biochemistry at the Georgetown University School of Medicine since 1983. Dr. Papas is considered to be one of the leading experts in the field of Molecular Oncology and in the use of recombinant technology in AIDS research.

Dr. Flossie Wong-Staal is Chief of the Molecular Genetics of Hematopoietic Cells Section in the Laboratory of Tumor Cell Biology at the National CAncer Institute. She is a well-known scientist in the area of basic molecular research on the human retroviruses and the retroviral oncogenes. She has made a large number of contributions to our current understanding of the molecular

organization of the human T-cell retroviruses. Dr. Wong-Staal has had numerous awards and much recognition for her outstanding molecular research in AIDS, having received many invitations to chair and speak at symposiums and meetings worldwide. She is presently considered to be one of the foremost scientific experts in the U.S. on the subject of the human T-cell viruses and related human diseases.

Speakers

(AIDS)

Robert Gallo
Sam Broder
Max Essex
Flossie Wong-Staal
Wade Parks
Arsene Burny
Dani Bolognesi
Daniel Zagury
Dante Marciani
Martin Rosenberg
Helen Lee
Jean-Paul Allain
George Pavlakis

(ONCOGENESIS)

Howard Temin
Ray Erikson
Takis Papas
George Vande Woude
Stuart Aaronson
Tomas Graf
Werner Kirsten
Donald Blair
Neil Wilke
Peter Howley
Peter Vogt
Prem Reddy
Mariano Barbacid
Carlo Croce
Harry Antoniades

(GENE REGULATION)

Steve McKnight
Robert Tijian
Keith Yamamoto
Bruce Alberts
Kevin Struhl
Ed Ziff
Warner Greene
Tom Maniatis
Fotis Kafatos
Tom Roberts

JUSTIFICATION

Greece is at the extreme southeast corner of Europe, near the Third World countries in Africa, the Middle East and South Asia; some of these countries, particularly in Africa, are facing severe problems as a result of the HIV epidemic. Greece is a major crossroads for commerce and tourism, a factor which heightens its importance in being able to access and monitor the progression and biological characteristics of emerging HIV strains from multiple origins. A meeting of the type we propose will be very effective at bringing current and critically needed scientific information to these Third World nations. This knowledge will include state-of-the-art information regarding readily affordable testing, and provide insight into developments that would promise targeted anti-viral therapies, perhaps in the near future. In particular, Greece enjoys great respect for its long democratic traditions by the world community, as well as a degree of neutrality that would afford many nations in the Third World an easier opportunity to access an international meeting of this type. Moreover, Greece has an excellent transportation system, as well as modern communications facilities, including an extensive network of major airline flights to European and Third World destinations (as well as Eastern Europe, the Americas and Australia); it also has direct international telephone connections with modern communications links; good local transportaiton facilities; and a large capacity and distribution of modern hotels, as well as other commercial accommodations. While the standard of living is Western, prices and wages are still considerably lower than other comparable West European and North American localities and would be most affordable to participants, especially from the Third World nations.

Finally, although the meeting may appear to be similar in format to a number of others that have been held, there has not been a workshop or meeting of this type that brings together these three subject areas with the specific intent that we have proposed. In fact, generally speaking, although there is a great deal of overlapping interest by participants in these areas, communication among these varied participants in a formal meeting like this has not been established. Thus, this multidisciplinary meeting would not only review the current state of knowledge and the research efforts in these areas of high interest, but more importantly would encourage collaborative efforts between various leading laboratories that might not normally be encountered at a more specialized meeting. In particular, it would also afford an opportunity for participants and researchers to think about novel ways to utilize the information that has been accumulating in gene regulation and apply it towards a targeted intervention in human retroviral diseases and malignancies.